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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,954

07/02/2007

Satoshi Dodo

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EXAMINER

WONGWIAN, PHUTTHIWAT

ART UNIT

PAPER NUMBER

3741

MAIL DATE

DELIVERY MODE

03/29/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,954	<b>Applicant(s)</b> DODO ET AL.	
	<b>Examiner</b> PHUTTHIWAT WONGWIAN	<b>Art Unit</b> 3741	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/15/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is responsive the amendment filed on 06/15/2006. Claims 1-9 are currently pending in this application.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. As to claims 1-9, the applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The terms “a first and a second burner” in claims 1-9 are used by the claim to mean “a first and second fuel injector”, while the accepted meaning is “the combustion chamber or the combustor.” The term is indefinite because the specification does not clearly redefine the term.

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5. As to claim 5, the phrase "such a manner" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

6. As to claim 9, Applicant asserts that the claim element "a lean air-fuel mixture guiding means" is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, it is unclear whether the claim element is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, because it is not clear of what specific structure in the drawing constitutes "a lean air-fuel mixture guiding means". If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to:

(a) Amend the claim to include the phrase "means for" or "step for" in accordance with these guidelines: the phrase "means for" or "step for" must be modified by functional language and the phrase must **not** be modified by sufficient structure, material, or acts for performing the claimed function; or

(b) Show that the claim limitation is written as a function to be performed and the claim does **not** recite sufficient structure, material, or acts for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. For more information, see MPEP § 2181.

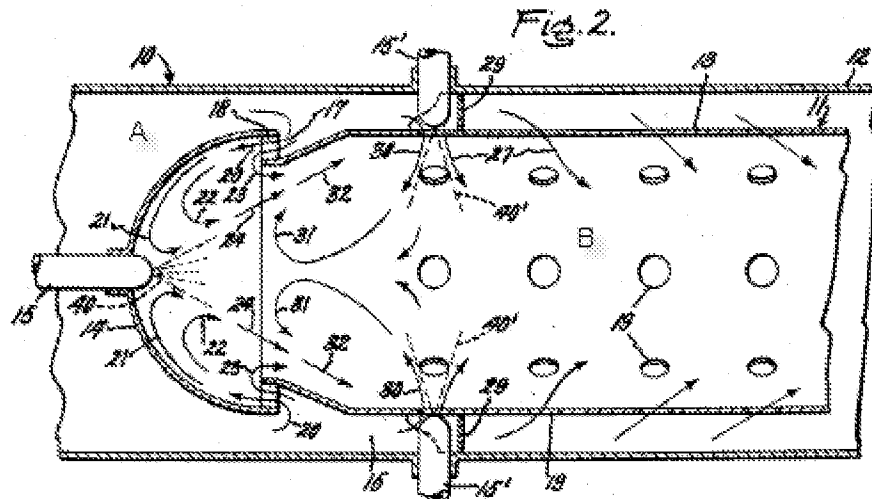
**Claim Rejections - 35 USC § 102**

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. As best understood, claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US Patent No. 2,930,192).



9. As to claims 1-3 and 8, Johnson discloses a combustor for a gas turbine, comprising: a tubular 11 (fig. 2) combustor liner forming a combustion chamber B (fig. 2 above); an outer tube 10 (fig. 2) provided in an outer peripheral portion side of the combustor liner via a gap A (fig. 1 above); a first burner 15 (fig. 2) provided in one end (fig. 2) of the combustor liner and injecting a fuel 40 (fig. 2) and an air 21 (fig. 2) into the combustion chamber; an air introduction hole 19 (fig. 1) introducing a combustion air 30 (fig. 2) guided from the gap with respect to the outer tube into the combustion chamber B (fig. 2 above); and a second burner 15' (fig. 2) provided in the outer tube at a position

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facing to the air introduction hole 19 (fig. 2) and directly injecting the fuel 40' (fig. 20 into the combustion chamber B (fig. 2 above) from the air introduction hole 19 (fig. 2 above), wherein the air introduction hole 19 (fig. 2) and the second burner 15' (fig. 2) are installed at a position corresponding to a leading end portion (fig. 2 above) of a flame generated by the first burner [inherent] , a flow speed of the air injected into the combustion chamber from the air introduction hole is made higher than a flow speed of a combustion gas around the air introduction hole [inherent], the air injected from the air introduction hole 19 (fig. 2) is brought into contact with each other within the combustion chamber so as to form a circulation jet flow (fig. 2 above), the air introduced into the combustion chamber from the air introduction hole is mixed with the combustion gas, and the fuel is slowly oxidized [inherent].

10. As to claims 4-7, Johnson discloses the second burner 15' (fig. 2) is provided so as to pass through a peripheral wall 11 (fig. 2) forming the combustion chamber, wherein the second burner 15' (fig. 2) is constituted by a plurality of burners 15' (fig. 2), and these plurality of burners are arranged in such that the fuel and the air come into collision with each other near a center portion of the combustion chamber (fig. 2 above), wherein the second burner 15' (fig. 2) is provided with a fuel injection nozzle 15' (fig. 2) near a center portion (fig. 2 above) of the combustion chamber such that the fuel is positioned in an outer side of a spray flow of the air (fig. 2 above) and wherein the second burner 15' (fig. 2) is provided with a guide tube 15' (fig. 2) guiding the fuel 40' (fig. 2) and the air 30 (fig. 2) to a center portion (fig. 2) of the combustion chamber, in a

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peripheral wall 11 (fig. 2) forming the combustion chamber, and the guide tube protrudes into the combustion chamber.

11. As to claim 9, Johnson discloses a combustor (fig. 2 above) for a gas turbine comprising: a tubular combustor liner 11 (fig. 2) forming a combustion chamber B (fig. 2 above); an outer tube 12 (fig. 2) provided in an outer peripheral portion side of the combustor liner via a gap A (fig. 2 above); a pilot burner 15 (fig. 2) provided in an upstream side of the combustor liner and injecting a fuel 40 (fig. 2) and an air 21 (fig. 2) into the combustion chamber so as to secure a combustion stability [inherent]; and a lean air-fuel mixture guiding means 15', 19 (fig. 2) provided in a peripheral wall 11 (fig. 2) of the combustor liner and directly injecting the fuel 40' (fig. 2) and the air 38 (fig. 2) into the combustion chamber B (fig. 2), wherein a flow speed of the air injected into the combustion chamber from the lean air-fuel mixture guides means is made higher than a flow speed of a combustion gas around the lean air-fuel mixture guiding means [inherent], and the fuel and the air from the lean air-fuel mixture guiding means 15', 19 (fig. 2) are injected to a leading end portion of a flame generated by the pilot burner so as to form a circulation jet flow of the lean air-fuel mixture [inherent].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUTTHIWAT WONGWIAN whose telephone number is 571-270-5426. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL A. CUFF can be reached on 571-272-6778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. W./  
Examiner, Art Unit 3741

/Michael Cuff/  
Supervisory Patent Examiner, Art Unit 3741